

We claim:

1. A method for providing access to application data items of an application program, said application data items being contained in a plurality of interconnected data objects processed by said application program, said method comprising the steps of:

- receiving a request related to at least one of said application data items, said request referring to a data object of said plurality of data objects,
- fulfilling said request with respect to said data object referred to by said request, and
- if said request concerns at least one other data object of said plurality of data objects, forwarding said request to said at least one other data object for further processing of said request.

2. The method of claim 1, wherein said further processing of said request by another data object to which said request has been forwarded includes the steps of:

- fulfilling said request with respect to said other data object to which said request has been forwarded, and
- if said request concerns at least one further data object, forwarding said request to said at least one further data object for further processing of said request.

3. The method of claim 1, wherein said data objects are interconnected in a way that, for each data object, zero or more data objects are associated thereto, and wherein each request is considered as concerning at least some of the data objects associated to said data object referred to by said request.

4. The method of claim 1, wherein said data objects are interconnected in a way that, for each data object, zero or more data objects are associated thereto as super-objects, and zero or

more data objects are associated thereto as sub-objects, and zero or more data objects are associated thereto as related objects, and wherein each request is considered as concerning at least those data objects that are associated to said data object referred to by said request as super-objects and at least those data objects that are associated to said data object referred to by said request as related objects.

5. The method of claim 4, wherein each request is additionally considered as concerning at least those data objects that are associated to said data object referred to by said request as sub-objects.

6. The method of claim 1, wherein said request is a request for initialization of the access providing functionality, and the step of fulfilling said request for a data object includes the creation of a data provider associated with said data object.

7. The method of claim 6, wherein said request for initialization of the access providing functionality is processed by at least one extension object associated with said data object referred to by said request.

8. The method claim 3, wherein said request is a request selected from the group comprising a request for obtaining a collection comprising the names of all application data items accessible via said data object referred to by said request and a request for obtaining a collection of sample expressions, said sample expressions comprising at least some of the names of the application data items accessible via said data object referred to by said request.

9. The method of claim 8, wherein said application data items accessible via said data object referred to by said request include the application data items contained in said data object

referred to by said request and the application data items contained in any of the data objects associated thereto.

10. The method of claim 3,

5 wherein said request is a request for obtaining the value of an application data item contained in said data object referred to by said request or in any of the data objects associated thereto.

11. The method of claim 10,

10 further comprising the steps of:

- creating an evaluator for a data object,
- calling said evaluator with an expression comprising at least one name of an application data item contained in said data object or in any of the data objects associated thereto,
- 15 - evaluating said expression using obtained values of said application data items whose names are comprised in said expression, and
- outputting the result of said evaluation.

12. The method of claim 11,

20 wherein said steps of evaluating said expression and of outputting said result are repeated upon the occurrence of a recalculation event.

13. The method of claim 12,

25 wherein said result of said evaluation is output as an application data item of one of said data objects processed by said application program.

14. The method of claim 1,

wherein the main functionality of said application program is a functionality selected from the group comprising the graphical displaying of documents reflecting said data objects and the textual displaying of documents reflecting said data objects and the graphical editing of documents reflecting said data objects and the textual editing of documents reflecting said data objects.

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15. The method of claim 1,
wherein said application program is a CAD program, and said application data is
the data processed by said CAD program.

5 16. The method of claim 1,
wherein said access is provided as an auxiliary function of said application
program.

10 17. A computer program product for execution by a computer for providing
access to application data items of an application program, said application data
items being contained in a plurality of interconnected data objects processed by
said application program, said computer program product comprising instructions
for causing said computer to perform the steps of:

- 15 - receiving a request related to at least one of said application data items,
said request referring to a data object of said plurality of data objects,
- fulfilling said request with respect to said data object referred to by said
request, and
- if said request concerns at least one other data object of said plurality of
data objects, forwarding said request to said at least one other data object for
20 further processing of said request.

18. The computer program product of claim 17,
wherein said computer program product further comprises instructions for causing
said computer to perform, for said further processing of said request by another
25 data object to which said request has been forwarded, the steps of:

- fulfilling said request with respect to said other data object to which said
request has been forwarded, and
- if said request concerns at least one further data object, forwarding said
request to said at least one further data object for further processing of said
30 request.

19. The computer program product of claim 17,
wherein said application program is a CAD program, and said application data is
the data processed by said CAD program.

5 20. An apparatus comprising at least one computer, said computer being
programmed for providing access to application data items of an application
program, said application data items being contained in a plurality of
interconnected data objects processed by said application program, said computer
being programmed for executing the steps of:

- 10 - receiving a request related to at least one of said application data items,
said request referring to a data object of said plurality of data objects,
- fulfilling said request with respect to said data object referred to by said
request, and
- if said request concerns at least one other data object of said plurality of
15 data objects, forwarding said request to said at least one other data object for
further processing of said request.

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